60p

THE Unexplained

MYSTERIES OF MIND SPACE & TIME

83

What is time?
The corpse that winked
The fire and the phantom
Creating zombies
Reversing poles

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THE Unexplained
MYSTERIES OF MIND SPACE & TIME

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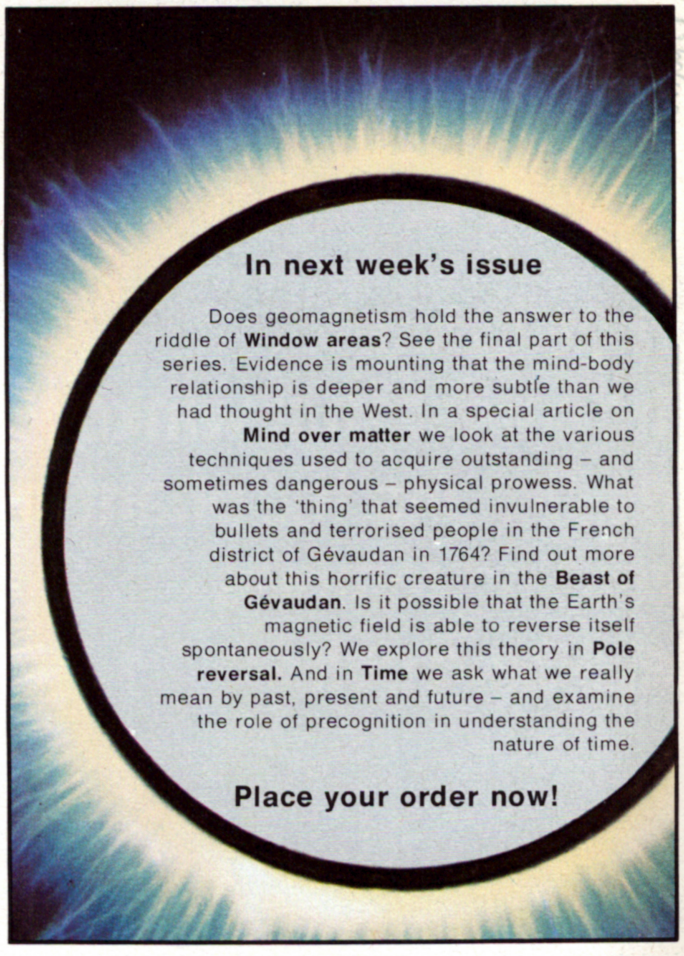
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A topsy-turvy world

Could the Earth topple over tomorrow, triggering a chain of disasters, bringing tropical forests to Greenland and burying India under polar snows? NIGEL HENBEST surveys the maverick pole shift theories, which claim that the globe can tumble in space like a floating beach ball

An ice cap covers Central America and part of South America. The tropical zone runs through Africa, Europe and, on the far side of the Earth, Alaska, the Pacific and Antarctica. The unseen pole lies in Sumatra and the East Indies. This, some theorists claim, is how the Earth has looked and may look again

THE EARTH TURNS steadily once a day, around the imaginary axis that punctures the surface at the North and South Poles – like the metal rod that passes through the old-fashioned schoolroom globe. One might think that it always has and always will. But a few independent thinkers dispute this claim. They believe our world is unstable, and could shift at any moment, so that the areas of the surface that are now at the poles would find themselves at the equator. India could be covered by polar ice cap while Antarctica and Greenland basked in equatorial sunshine.

If the Earth were to tilt suddenly enough, the planet would be swept by hurricane winds and huge tidal waves, and racked by earthquakes and volcanic eruptions as the atmosphere, oceans and surface rocks tried to catch up with the planet's new orientation. Believers in pole shifts think that the Earth's tipping over accounts for a whole range of catastrophes in the Earth's history, from the extinction of the dinosaurs 65 million years ago (see page 1501) to folk myths telling of the disappearance of Atlantis.

Pole-shift theorists have often been impressed by the fact that the climates of most countries have suffered dramatic changes in the past. During the Carboniferous era, for example, the British Isles were a hot tropical region, with lush fern forests that have now been fossilised into coal. The tropical forests also covered much of North America, right up to Greenland. At about the same time, India and the western parts of Australia were

Above: a tropical forest of the Carboniferous era, 300 million years ago. Such forests covered vast regions, including many that are now temperate in climate, such as northern Europe. The fossilisation of dead vegetation gave rise to the world's coal seams

buried under thick sheets of ice.

In 1889, the American writer Marshal Wheeler concluded that such evidence shows that the Earth's axis can suddenly change its direction, in relation to features on the surface, by 90°. In fact this is due, he claimed, to a sudden shift in the orientation of the body of the Earth. The axis stays in roughly the same position (at $66\frac{1}{2}$° to the plane of the Earth's orbit about the Sun). The region then at the pole becomes cold and ice-covered. Wheeler's pamphlet *The Earth – its third motion* set out to show that our planet used to be orientated so that Sumatra and Ecuador lay at the two poles. The equator then ran around the Earth through central Africa, Italy and Sweden to the present North Pole; then round through Alaska and the middle of the Pacific Ocean to Antarctica and back past Cape Town to mid Africa. Thus we had glaciation in India and Australia, near the Sumatran polar ice cap; and tropical forest in the equatorial regions running through northern Europe.

What caused the shifts?

Wheeler believed that the shift of the poles from Sumatra and Ecuador was the Earth's 'third motion' (the other two being the daily rotation on its axis and the yearly revolution around the Sun). Clearly a lot of energy is needed to tilt the whole globe, and Wheeler thought that the energy came from 'encircling magnetic currents'.

Almost 80 years later an electrical engineer, Hugh Auchincloss Brown, proposed a variant on this idea. Brown looked at evidence for the Earth having tilted in the much nearer past. His book *Cataclysms of the Earth* reached the conclusion that the Earth's axis tilted by 90° as recently as 7000 years ago – and repeats the old idea that this shift caused Noah's Flood. Other shifts occurred about 11,400, 18,400 and 41,800 years ago. Before the last shift, the poles were in central Africa and the mid Pacific. The equator ran through Siberia, and here mammoths lived in tropical comfort – until the pole shift, which left them almost instantly frozen solid.

Brown suggests an explanation, seemingly more scientific than Wheeler's, for the rapid tilt of the Earth. After each pole shift, ice and snow build up in the new polar regions until the polar caps become so massive that the Earth is unstable. It topples over by 90° so that the old polar caps lie on the equator, and two opposite regions of the previous equator now become the Earth's North and South Poles.

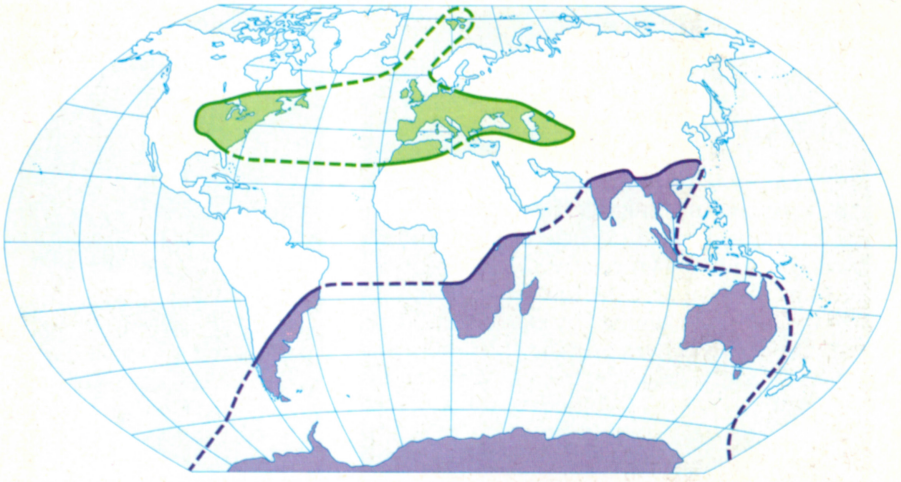
There are in fact many reasons why 90° pole shifts of this kind cannot have occurred. The Earth's magnetic field is not strong enough to turn the planet over, even if something outside could twist the field over.

Flip-side Earth

The paradoxical properties of fast-rotating bodies have been demonstrated to generations of children with the aid of the gyroscope. This is essentially a flywheel, mounted on a spindle. When it is set spinning it seems to take on a life of its own, resisting attempts to twist its axis. The effect is shown dramatically if the device is supported at one end of its axis – as in this multiple-exposure photograph (right), in which a gyroscope is being held up by a loop of string. The gyroscope does not fall to the ground; instead its axis stays level but revolves – or *precesses* – around the point of support. If the flywheel is massive and spins very fast, the precession is very slow and the device seems to hang motionless, defying gravity. The Earth itself, an

Although ice does accumulate at the poles, as Brown says, the Earth in fact compensates for much of the extra weight. The weight of ice depresses the underlying land surface of Antarctica, while the northern polar ice has displaced an exactly equal weight of water from the polar ocean beneath. In addition, the Earth's spin has produced a bulge all round the equator, and the total mass in this bulge is far greater than that of the ice in the polar regions. The Earth already has the bulk of its asymmetrical mass at its equator, so it is extremely resistant to any supposed pole-shifting force.

Brown's idea of pole shifts every few thousand years is directly contradicted by the evidence. The ice caps in Greenland and Antarctica are millions of years old, not a few thousand; and there is no evidence for a polar ice cap in central Africa as recently as 5000 BC. The death of the mammoths is no longer the puzzle it seemed a few decades ago. We now know they were arctic creatures, not tropical ones like the modern elephants:



Above: ancient climates. In the green areas tropical vegetation flourished 300 million years ago. In the blue land areas the plants were of typical polar types

there is no need to invoke an equator running through Siberia. And they died out gradually over tens of thousands of years, not in one sudden catastrophe.

Wheeler's evidence does not stand up either. Although India and parts of Australia were undoubtedly iced over some 300 million years ago, what is now the opposite side of the Earth was not under a polar ice cap. In fact, Ecuador was then basking in the same kind of tropical paradise as northern Europe.

After experimenting with gyroscopes an American patent attorney, Adam Barber, decided that the spinning Earth sometimes flips over because it is following *two* orbits simultaneously through space. Barber agreed with orthodox scientists that the Earth follows an orbit 186 million miles (300 million kilometres) in diameter, which takes it around the Sun once a year. But he believed that in addition our planet has a smaller orbit, one twentieth of this size, which it completes every 36,000 years. At intervals of 9000 years the Earth's axis is at right angles to both orbits. Barber concluded that at this moment gyroscopic forces would tip the Earth over by 135°. He published a pamphlet, entitled *The coming disaster worse than the H-bomb*, about the next pole shift. In 1955 he predicted its occurrence within the following 50 years.

These gyroscope ideas can in fact be dismissed. Astronomers could easily have detected any deviation of the Earth from its accepted orbit. Over the past 2000 years of recorded observations, the effect of the Earth following a second orbit would have shown up readily as an unexplained apparent motion of all the other planets.

There is, however, another 'gyroscopic' theory that has been taken more seriously. In 1978, Peter Warlow published a paper on pole shift in the learned and respected *Journal of Physics*. He claims that the Earth tips over not by 90° or 135°, but by a full 180°, so that the previous North Pole becomes the South Pole, and vice versa. Warlow's experiments involve not an ordinary gyroscope but a particular type of spinning top, popular in Victorian times and now sometimes found in

Above: if climates can be totally changed in a day by pole shifts, then many parts of the world must often have seen newly formed ice sheets encroaching on forests that only recently were flourishing in temperate or tropical zones. Such scenes are evoked by this view of the Moreno glacier, flowing down from the Argentinian Andes

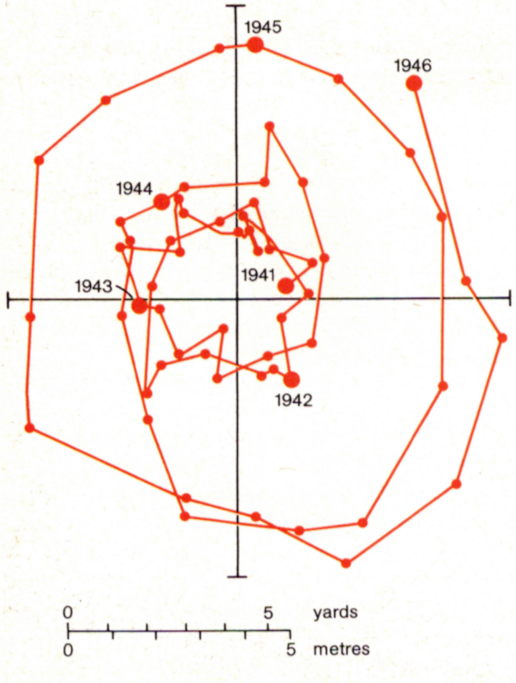
enormous gyroscope, precesses very slowly – once every 26,000 years (see page 1204). Peter Warlow, an exponent of the pole shift theory, believes that a hypothetical stray planet passing sufficiently close could exert a gravitational pull capable of twisting the Earth over. The axis of rotation would tend to resist any change, but the Earth itself could flip through 180°, perhaps in as little as a day. The magnetic field would not flip over. The oceans, the atmosphere and living creatures would not be thrown into space, but would probably share in the motion. But earthquakes, triggered by crustal stresses, and the rapid redistribution of climates and ocean and air currents would have disastrous effects on countless species.

Christmas crackers. Such a 'tippe top' is a solid sphere from which the upper part, forming a cap, has been cut off and replaced by a short stem. If you spin the top with the stem uppermost and wait for it to slow down, the top will eventually flip over and stand on the stem, still spinning. The axis of spin is still vertical, and the direction of spin is the same; the solid body of the top has simply turned upside down relative to its spin.

Warlow compares the Earth to a tippe top, and backs up the analogy by exact calculation – unlike most writers on pole shift. Like the others, though, Warlow tries to confirm his theory with his own interpretation of the Earth's past. He takes the evidence of myths very seriously. For example, he states that Egyptian myths have recorded four reversals in the direction of the Sun's motion across the sky since 9000 BC – and naturally interprets this as due to the Earth suddenly turning upside down. The most recent shifts occurred in 700 BC and 1500 BC, the latter producing the catastrophe that destroyed the Minoan civilisation in Crete. Before that, the Earth flipped over in about 3000 BC, 8000 BC, and 11,000 BC.

Looking to the more distant past, Warlow points out that the Earth's magnetic field, as recorded in the rocks, has changed direction at least 20 times in the past $4\frac{1}{2}$ million years. At these times, the magnetic pole in the Arctic has changed from 'north' type to 'south' type, or vice versa. Warlow contends that it is likely that the Earth's magnetic field is always the same way round, and that the Earth itself has tipped over.

Finally, there are several major upheavals in the Earth's history, at intervals of around 100 million years – the most recent being the extinction of the dinosaurs 65 million years ago. These disasters could have resulted from a particularly sudden pole shift.



Left: a proven pole shift. The position of the North Pole wanders erratically around its average position. This effect of the incessant movements of air, sea and crustal rocks is called the Chandler wobble after the scientist who discovered it

Above: Joshua, about to lead the Israelites against the Amorites, orders: 'Sun, stand thou still upon Gibeon; and thou, Moon, in the valley of Ajalon.' The obliging celestial bodies did so 'and hasted not to go down about a whole day', allowing the Israelites time to avenge themselves upon their enemies. This is one of many legendary accounts of the Sun standing still, or rising in the west, adduced by Immanuel Velikovsky to support the notion that the Earth's rotation has changed abruptly and frequently in the past

If a planet with a mass roughly equal to the Earth's were to pass by only about 30,000 miles (50,000 kilometres) from us (about four Earth diameters away), its pull on the Earth's equatorial bulge would be strong enough to tip the Earth over. Warlow follows the unorthodox ideas of Immanuel Velikovsky in supposing that small planets are ejected from the cores of larger ones, and that Jupiter and Saturn have given birth to planets such as Venus. He thus endorses Velikovsky's proposal that the disasters of 1500 BC were due to the close passage of the newly formed planet Venus past the Earth.

Of all the pole-shifting ideas, Warlow's is the only one that can be taken at all seriously, because it is based on a sound physical foundation. But even so, the theory fails to stand up to scrutiny. It is just possible that a planet could pass the Earth closely enough to flip it over – but it would seriously affect the Earth's orbit about the Sun. Even a small change in the distance of the Earth from the Sun, or in the shape of the Earth's orbit, would alter our climate tremendously, and no such climatic changes are known to have occurred in the past few thousand years. Again, a planet with a mass similar to the Earth's, passing within the Moon's orbit, would have just as strong a gravitational pull on the Moon as the Earth does; after a number of encounters, the Moon would have been torn away from the Earth and would have vanished into space.

Right: the toppling of the Earth, according to Warlow. Tugged by a passing planet, the Earth begins to tilt (top). If the total shift takes a day, then this view shows it when the first 8 hours have passed. After 12 hours (centre) the poles are at the equator. After 16 hours the Earth is actually 'upside down' (bottom). To a surviving inhabitant, the Sun would now appear to rise in the west and the Earth's magnetic field, in reality unchanged, would appear to have reversed

And Warlow apparently has not considered just how many planets he needs to narrowly miss the Earth. His evidence from myth supposedly shows that the Earth flips over every 2000 years or so. He seems to regard the historical occurrences of pole shifts as a representative sample of their occurrence throughout geological time – which means a staggering *2 million* reversals in our planet's history. This requires 2 million planets of about the Earth's mass to be ejected from other planets, and now lost from the solar system (except for Venus, and possibly Mars and Mercury). The giant planets Jupiter and Saturn together weigh only as much as 400 Earths: they can hardly have supplied all these planets. To put the matter into perspective, the amount of mass in the 2 million planets would outweigh the Sun six times over!

An absence of catastrophes

Since these planets must also have passed only a few Earth diameters away from our planet, it is amazing that not one of them actually collided with the Earth. Although a single collision is not as likely as a near miss, the chance that *all* would *just* miss is extremely small – like throwing 2 million darts at a board, getting close to the bull's-eye, yet never quite hitting it.

Warlow's ideas thus do not stand up to scrutiny, even as they are presented by him in his book *Reversing Earth*, published in 1982. Furthermore, the American physicist Victor Slabinski has pointed out that Warlow made three errors in his calculations. The effect of these errors, Slabinski found, was that the pull needed to turn the Earth over is in fact 200 times greater than Warlow had calculated. So the passing planet would not be of approximately the Earth's mass, like Venus, but would have to be more like the giant planet Jupiter. Quite apart from making the problem of supplying the necessary planets even more overwhelming, the close passage of such a giant planet would have thrown the Earth out of its orbit altogether.

After the debate stimulated by Warlow's investigation, no one can seriously consider that the Earth flips, tilts or shifts its axis dramatically to produce major catastrophes. Yet there are still two loose ends unaccounted for. The Earth's magnetic field undoubtedly *does* flip over. And in the past different parts of the Earth *did* have climates quite different from their present ones – ice caps covered India at the same time that Greenland's life flourished in tropical splendour. In the mid 20th century orthodox geologists have explained these vagaries of the Earth's climatic history – by a theory even more bizarre than the notion that the world simply flips over in space.

On page 1670: the tape-recorded message in the rocks of the ocean beds

The fear of being raised from the grave as a zombie has afflicted Haiti's rulers and prosperous, educated classes as well as the common people. But, as FRANK SMYTH explains, the zombies that witnesses have described may never have been truly dead

In the midst of life...

THE GREAT DIFFICULTY facing any present-day enquirer into any aspect of Haitian life, and especially voodoo, is that for almost 14 years the country was in the grip of one of the cruellest dictatorships in history. François Duvalier – 'Papa Doc' to his friends and his enemies alike – hated and distrusted anything that smacked of the old colonial days. After he had made himself President for life, he barred American, French and British business and political activity in his country. Black himself, he became a scourge to the thousands of Haitian businessmen of mixed blood.

Papa Doc boasted of being a powerful *bokor* – sorcerer. His personal bodyguard, always masked by dark glasses and laden with arsenals of small arms, were named *tontons macoutes* after the travelling sorcerers who were the most feared figures of voodoo. Papa Doc encouraged the belief in voodoo and in his own magic powers, so that the peasants and many middle-class people believed him to be godlike and all-powerful. His son 'Baby Doc', although he is also President for life, appears to have relaxed some of his father's restrictions – mainly in the interests of trade – but the all-pervasive influence of the voodoo creed runs too deep to loosen its grip easily. Any foreigner seeking information under these circumstances, therefore, must necessarily sift the wheat from the chaff with care.

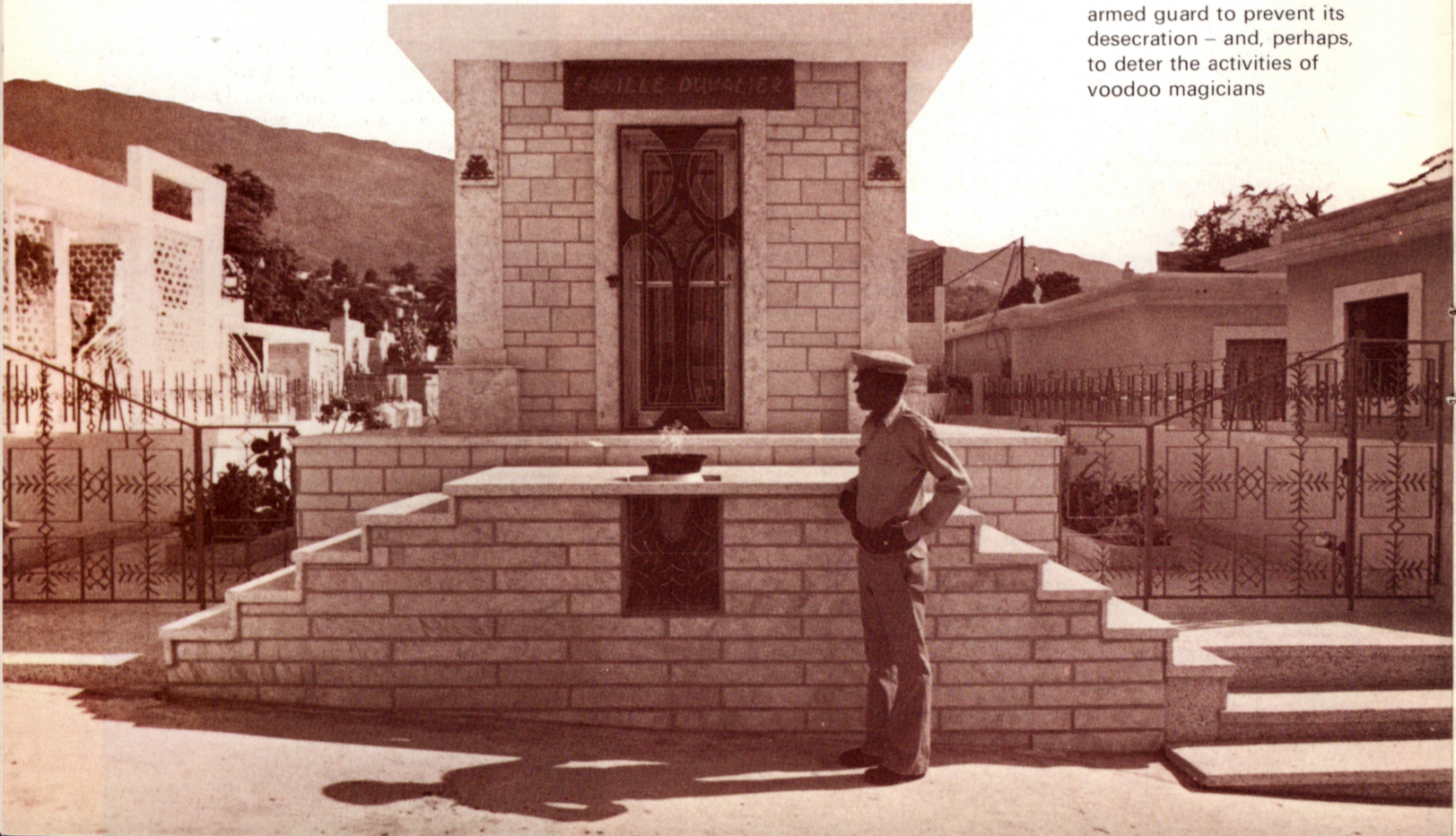
Yet there remain tales and snippets of fact that must give even the most hardened sceptic pause for thought. For instance, it was thought for years that Papa Doc was being purely cynical in his exploitation of voodoo 'power'. He himself, it was said, being an educated man, knew the whole thing to be nonsense. In fact, since his death in 1971 his large blue and cream mausoleum, surmounted by a Christian cross, perpetually surrounded by fresh flowers, and standing in the best quarter of Port-au-Prince, has been guarded day and night by armed men. No *bokor* 'working with both hands' – that is, no black magician – is going to steal the Duvalier corpse and turn it into a zombie.

A correspondent for the African magazine *Drum* who visited Haiti in the late 1960s summed up the generally ambivalent attitude of the authorities to voodoo in this way:

A tourist, particularly a journalist, will

Above: the corpse of François Duvalier – 'Papa Doc'. Dictator of Haiti for nearly 14 years, he was a practising Roman Catholic – and also, according to rumour, a practitioner of voodoo sorcery

Below: the tomb of Papa Doc, under continuous armed guard to prevent its desecration – and, perhaps, to deter the activities of voodoo magicians



generally find no difficulty in getting himself invited to a *houmfort* (voodoo temple) in the forest for a Saturday night ceremony. The *hungan* (voodoo priest) and his followers apparently go into trances and dance ecstatically, and everything is very colourful. But mention zombies, or the *Culte des mortes*, which centres on Baron Samedi and worships in graveyards, and one draws a blank. I was convinced that dark practices and secret ceremonies do go on simply by the vehemence of authority's denial that they ever existed at all.

Voodoo has always been big business, and it is not only visiting journalists who are duped. Fraud is frequently uncovered. The British anthropologist Francis Huxley tells how a magistrate watched while a *hungan* took a body from a grave, muttered invocations over it, shook it and finally reanimated it. The magistrate, less fearful than his fellows, searched the empty 'tomb' and found a breathing tube leading from it. The 'corpse' had been the *hungan*'s accomplice.

Above: *Les zombies*, a painting by an Haitian artist, Hector Hippolyte, who was himself a voodoo priest. Here two reanimated corpses are driven from the grave to a half-life of servitude by a sorcerer

But fraud cannot account for all the disturbing tales told of the zombies. One of these stories was recounted to Huxley by a Catholic priest. In 1959 a zombie was found wandering in a village street. He was taken to the police station, but the police cautiously declined to take any action and he was left standing outside. After some hours he was given a drink of salt water – to restore, at least in part, his mental functioning. The zombie stammered out a name that someone recognised as belonging to a woman living in the village. She was brought, and identified the zombie as her nephew, who had died and been buried in 1955. The Catholic priest heard of what had occurred, interviewed the zombie, and discovered the name of the *bokor* who had bewitched him. The priest reported the name to the police but they, thoroughly alarmed by now, simply sent a message to the *bokor*, offering him his stray zombie back. Two days later the zombie was found murdered; the *bokor* was arrested, but eventually released.

Alfred Métraux seemed tentatively satisfied with the witnesses to another case of zombie possession dating from the 1950s. A young girl had rejected the sexual advances of a *hungan* who 'worked with both hands'. A few days after she had sent away her unwanted suitor, she fell ill of a high fever and died in hospital of an unspecified complaint. The girl's body was taken home, where a coffin, bought ready-made in Port-au-Prince, had been prepared for its reception. Unfortunately, it proved too short for its intended occupant, and the girl's neck had to be violently bent before the corpse would fit.

A further mishap occurred during the funeral 'wake' in which dancing and rum featured prominently. A lighted candle that illuminated the open casket fell onto the corpse, severely burning the left foot.

Scars of the coffin

A few months after the burial a rumour spread that the supposedly dead girl had been seen in the company of the *hungan* she had rejected. Her family regarded this tale as no more than superstitious gossip. No doubt, they reasoned, the *hungan* was attracted to women of the deceased daughter's physical type and he had acquired a mistress with a slight resemblance to her.

A few years later, however, a son of the family saw a woman who resembled his dead sister working at a menial task. He asked her what her name was. She was unable to say, nor did she have any memory of her past. But her neck was twisted and she bore the scar of a severe burn on her left foot.

She was taken back to her supposed parents' home, but despite loving care she was unable to give a satisfactory account of herself and remained a virtual idiot until her (second?) death.

Another well-authenticated account was reported by the writer Stephen Bonsal in 1912:

> A man . . . fell ill. He had at intervals a high fever, which physicians could not reduce. He had joined a foreign mission church, and the head of this mission visited him. On his second visit this clergyman saw the patient die . . . and helped dress the dead man in his grave-clothes. The next day he assisted at the funeral, closed the coffin lid, and saw the dead man buried.
>
> The mail rider to Jacmel found some days later a man dressed in grave-clothes tied to a tree, moaning. He

freed the poor wretch, who soon recovered his voice but not his mind. He was subsequently identified by his wife, by the physician who had pronounced him dead, and by the clergyman. The recognition was not mutual, however. The victim recognised no-one, and his days and nights were spent moaning inarticulate words no-one could understand. President Nord Alexis placed him on a government farm, near Gonaives, where he was cared for.

A counterfeit death?

Is there a rational, non-supernatural explanation of these and similar cases of 'corpses' being buried and then, months or years later, being found, still alive but mindless? Among those who have thought so was Dr Antoine Villiers, a distinguished French physician who practised medicine in Haiti for many years. He did not believe that anyone had ever been literally raised from the dead; but he was by no means sure, he told the journalist William Seabrook, that some men and women, seeming idiots who toiled in the fields, had not been 'dragged from the actual graves in which they lay in their coffins, buried by their mourning families'.

Villiers was suggesting that some Haitian sorcerers knew of drugs that could induce a coma so deep as to be mistaken for death, and after 'death' and burial, the victim of the poisons could be restored to life – but not, it would seem, to health, for the brain's functioning and memory suffered permanent impairment.

There is some evidence that knowledge of such drugs existed throughout the parts of West Africa from which most slaves were imported, and also, to a lesser extent, in the Caribbean countries inhabited by people descended from slaves: Haiti, Jamaica and elsewhere.

For example, A.W. Cardinall, who had spent many years in the Gold Coast (now Ghana), reported in 1927 that youths of certain tribes often underwent a sort of temporary death. When a youth wished to enter one of the tribe's secret societies, he would be initiated by being cut with a knife. 'Medicine' was inserted into the wounds, producing a prolonged coma. 'He dies for five days' was the expression used by Cardinall. At the end of the five days the youth was given another medicine and restored to healthy life.

It is clear that the knowledge of 'medicines' of the sort used in this rite was taken to the Americas by slaves who were skilled in the magic of their homeland. In 1789 evidence was given to a British government committee on slavery that 'slave sorcerers' impressed strangers with their magical powers by 'showing them a Negro apparently dead who, by dint of their art, soon recovers'.

Further details of this 'raising from the dead' were given by the English writer Monk Lewis, who witnessed the procedure a century and a half ago. The sorcerer sprinkles

> various powders over the devoted victim, blows upon him, and dances around him, obliges him to drink a liquor prepared for the occasion, and

A doll used in Haitian black magic. It represents the person on whom the sorcerer wishes to cast a spell – from personal malice or merely because he has been paid to do so by some enemy of the victim

In the heat of the moment

Voodoo ritual and the techniques of brainwashing were linked by the distinguished medical psychologist William Sargant. Brainwashing involves subjecting prisoners to prolonged and intense stress, physical and mental exhaustion, and the incessant suggestion of desired attitudes and beliefs. Victims may strongly resist the beliefs they are required to adopt, but a point is invariably reached at which they break down. As they recover, they enthusiastically espouse the doctrines of their captors, to whom they often feel devotion and love.

Sargant claimed that the dramatic conversions of people listening to Christian 'hell-fire' preachers were due to the stress of religious terror and exaltation, combined with fatigue. And in voodoo ritual, rhythmic drumming and chanting, exhaustion, and the fear of sinister gods could similarly result, he believed, in a personality shift, when participants are 'possessed' (left), mimicking skilfully the behaviour of some god. At least one visiting anthropologist, caught up in the frenzied dancing, experienced a 'spiritual rebirth', followed by 'agreement with, and admiration for, the principles and practice' of voodoo. Such powerful processes of suggestion may account for the strength of Haitians' belief in voodoo deities, the powers of magicians – and the reality of zombies.

finally the sorcerer and his assistant seize him and whirl him rapidly round and round till the man loses his senses, and falls to the ground, to all appearances and the belief of the spectators a perfect corpse. The chief . . . then utters loud shrieks, rushes out of the house with frantic gestures, and conceals himself in a neighbouring wood. At the end of two or three hours, he returns with a large bundle of herbs, from some of which he squeezes the juice into the mouth of the dead person; with others he anoints his eyes, and stains the tips of his fingers, accompanying the ceremony with a great variety of grotesque actions, and chanting all the while something between a song and a howl. . . . A considerable time elapses before the desired effect is produced, but at length the corpse gradually recovers animation, [and] rises from the ground. . . .

The plant that was reputed to produce the state of cataleptic trance was called *callaloo*. If it was so used, it must have been prepared in a special way, or acquired its powers by being compounded with drugs, for *callaloo* is of itself quite harmless and indeed is sometimes boiled to a pulp and eaten as a vegetable.

Belladonna and thorn apple are two vegetable poisons believed by ordinary Haitians to be blended with more magical substances – for example, three drops of fluid from a corpse's nose – to make the medicines by which sorcerers control zombies.

In fact a number of drugs are known to modern pharmacy that could induce a state of catalepsy or 'suspended animation'. Most of them, if mishandled, would be liable to produce brain damage. And whereas any modern hospital could quickly diagnose from the state of the victim what had happened to him, and which toxic substances had been adminstered, Haiti has few modern hospitals. And the ever-present fear of the zombie means that few if any peasants finding a wandering 'corpse' would willingly escort him to a doctor, where he could receive appropriate treatment.

Right: the gravestone of a 'voodoo queen' – Marie Laveau, a priestess. This memorial is in an American outpost of voodoo – New Orleans, the great Mississippi port. Voodoo worshippers would come to the tomb at night to deposit gifts in the pots. Voodoo is practised in other countries of the Western Hemisphere that have large black populations, notably in Brazil

Black magic in the modern age. This Haitian voodoo image, a pin stuck in its chest to bring suffering and perhaps death to some victim, is a cheap doll made of plastic

So it might be that the belief in zombies is based on superstition, gullibility and straightforward fraud in which the 'zombie' is an accomplice. It may be that the 'zombies' encountered by some outside observers are no more than mental defectives. But it is also at least possible that evil men do have the pharmaceutical knowledge to simulate living death.

The law-makers of Haiti have, in fact, been alive to this possibility. Dr Villiers drew William Seabrook's attention to the Criminal Code of the country. Article 249 of the Code reads:

> Also shall be qualified as attempted murder the employment which may be made against any person of substances which, without causing actual death, produce a lethargic coma more or less prolonged. If, after the administering of such substances, the person has been buried, the act shall be considered murder no matter what result follows.

Could it be, then, that the remote fields and hillsides of Haiti are even now being worked by 'dead' men and women, doomed to work on mindlessly until real death frees them from their enslavement?

Further reading

Francis Huxley, *The invisibles*, Rupert Hart-Davis 1966
Alfred Métraux, *Voodoo in Haiti*, André Deutsch 1972
William Seabrook, *The magic island*, Harrap 1936

World enough an

Psychics and scientists agree that we can explain the physical world only if we are prepared to jettison many of our common-sense ideas about the nature of time. What are these ideas, and why do we cling to them so tenaciously? ARCHIE ROY explores the issues

TIME – fleeting, phantom, ephemeral time – is truly the last frontier in its essential mystery, and an eternal fascination to men and women of all ages, a remorseless stream hurrying them onwards, freezing in the icebergs of the past their deeds, their triumphs, their follies. It wrenches from them their loved ones, it bears them towards the chilly mists of the fearsome future.

Prisoners on the ship of life, signed on for the duration of the voyage, we are conscious of the changing scenes, recording in our memories those that have gone, anticipating, predicting, attempting to plan the ship's course, trying to avoid foreseen reefs, steering for comfortable ports – yet knowing that the inexorable power of the current of time will always bear us on willy-nilly. We have no anchors strong enough to hold us upstream against the current. Time, as the hymn writer Isaac Watts truly said, like an ever-rolling stream bears all its sons away.

All living creatures have their biological clocks to measure time's passage – some crude like the promptings of hunger, some precisely attuned to the cycles of nature. Man possesses an additional gift, his mysterious consciousness, his ego, which can contemplate his existence, scan past memories and extrapolate from them, his ability to map mentally his position in the temporal and spatial environment, his restless curiosity spurring him on to explore his Universe.

From the time when Man's intelligence first took him beyond instinctive behaviour, he has been fascinated by time and its effects on the world around him. He witnessed the passage of the Sun across the sky and the slow yearly oscillation of its sunrise and sunset points against the eastern and western horizons. Linked to these cycles was his experience of the variable heat and brightness of day, the changing seasons and the migrations of animals. When the Sun spent a long time above the horizon the days were hot and the growth of living things was strong; when the day's duration was at its shortest, nature was frozen, bitter winds blew, and sleep, death's little brother, clasped many of the animals in his arms.

At night Man saw the Moon imitate with impatient speed the Sun's risings and settings. He observed the strange sequence of the lunar cycle, and the concept of the month was born. And the coast-dweller and fisherman discovered the even stranger link between the Moon's phases and the spring and neap high tides.

Below: a British beech wood photographed in spring, summer, autumn and winter. The mysterious cycles of nature, the procession of the seasons, the waxing and waning of the Moon and the orderly movement of the heavens, all led Man to assume that time moved steadily on, with events crystallising out of the unknown future into the present, and slipping into the unreachable past

All the mysterious cycles of the natural world seemed to be governed by the movements of the heavenly bodies. But the stars themselves were immutable, cold, remote diamond chips of light scattered in prodigal profusion at the beginning of time by some creator God across the invisible bowl of night, forever ordained to maintain their patterns while the bowl itself revolved, carrying them from rising to setting. A few, a very few stars – the planets – seemed freer than the rest, wandering at erratic speeds through the fields of space, occasionally stopping as if in contemplation of some cosmic dream, sometimes retracing their

Above: *The stages of life*, by Caspar David Friedrich (1774–1840). The human figures represent the ages of Man; the ships are symbols of our voyage through life

steps in a seemingly purposeful manner for weeks or months on end before resuming their former progress.

Change, always change – birth and growth and decay and death. The baby became the little boy playing with toys, with his pets, with his playmates. The boy disappeared as the youth formed; his personality altered, his former life as baby and boy became memories, faulty, fleeting. The youth became a man; time flew past, bringing with it good harvests and bad, friends and enemies, old age and its infirmities. And always change. The impression forced upon Man by nature was one of time passing, of experiences presenting themselves to him in succession, forming out of the unpredictable and non-existent *future*, crystallising in the real and present *now* before slipping from his grasp into the fixed *past*. And as a further ironical trick of time, as he grew older, so did time seem to speed up, so that the endless summers of childhood gave way to the ever swifter passage of the seasons in old age.

> For when I was a babe and wept and slept, Time crept;
> When I was a boy and laughed and talked, Time walked;
> Then when the years saw me a man, Time ran,
> But as I older grew, Time flew.

'If only I had my time over again'; 'If I only knew what awaited me'; 'I fear the future'; 'Why cannot this moment last forever?'; 'If I knew then what I know now'. The multitudinous cries of common Man echo the rueful tributes of poet, playwright and philosopher to the sovereignty of time passing.

In the Bible, in the book of Ecclesiastes (3: 1–2), we read:

> To every thing there is a season, and a time to every purpose under the heaven. A time to be born, and a time to die; a time to plant, and a time to pluck up that which is planted.

Much later, writing in the second century AD, the philosopher emperor Marcus Aurelius Antoninus muses:

> Time is like a river made up of the events which happen, and its current is strong; no sooner does anything appear than it is swept away, and another comes in its place, and will be swept away too.

The unstoppable flow of time bringing retribution terrifies the Dr Faustus of Christopher Marlowe (1564–1593):

> Now hast thou but one bare hour to live,
> And then thou must be damned perpetually;

Above right: time-lapse photography reveals the growth of a winter aconite. Such changes in the natural world are sure signs that time is passing – but what clues do they give us to the nature of time itself?

Stand still, you ever-moving spheres
of heaven,
That time may cease, and midnight
never come.

The receding past provokes Shakespeare's Richard II to cry: 'O! call back yesterday, bid time return.'

Like so many poets of his time, Shakespeare was fascinated by the ruthless destruction produced by the passage of time. Again and again in his sonnets and plays he returns to the theme:

When I have seen by Time's fell
hand defaced,
The rich-proud cost of outworn
buried age.

In the *Rape of Lucrece* he writes:

Mis-shapen Time, copesmate of ugly
Night,
Swift subtle post, carrier of grisly
care,
Eater of youth, false slave to false
delight,
Base watch of woes, sin's pack-horse,
virtue's snare,
Thou nursest all and murder'st all
that are:
O, hear me then, injurious, shifting
Time!
Be guilty of my death, since of my
crime.

And there are the famous words of the doomed Macbeth:

To-morrow, and to-morrow, and to-
morrow,
Creeps in this petty pace from day to
day,
To the last syllable of recorded time;

Above left: Mephostophilis drags Faust off to hell, in an illustration by Willy Pogany. 'Stand still, you ever-moving spheres of heaven,/That time may cease, and midnight never come,' says Mephostophilis, knowing that this cannot happen and that Faust's damnation at midnight is a certainty

Left: a 19th-century engraving showing the seven ages of Man, by William Mulready. Interpretations of this subject, popular from the 15th to the early 19th century, tended to give a depressing picture of Man's life as 'nasty, brutish and short'

And all our yesterdays have lighted
fools
The way to dusty death. Out, out,
brief candle!
Life's but a walking shadow, a poor
player
That struts and frets his hour upon
the stage,
And then is heard no more.

This acknowledgement of the pathetic and momentary nature of Man's life is echoed by Sir Thomas Browne (1605–1682): 'The night of time far surpasseth the day.'

Herbert Spencer (1820–1903) defines time ironically: 'Time: that which man is always trying to kill, but which ends in killing him.'

Time dominates all Man's actions, emotions and desires. He cries out against time, which hurries him past joyous experiences; he equally fruitlessly protests at its laggard pace in his boredom, pain or misery. But time heeds him not. At its own pace it bears him along like a dog subservient to its master's plan.

The Concise Oxford Dictionary has a whole page of entries on time. Very few other topics take up this amount of space. And yet the direct number of words allocated to the definition of 'time' totals 12: 'Duration, continued existence; progress of this viewed as affecting persons or things'. Not, one must admit, a definition that provides much in the way of enlightenment regarding the nature of time. Our understanding of such an important subject seems minimal. And yet in every generation, there have been men and women who have given their best efforts in wrestling with the subject, each seeking an understanding of the nature of time. For some time is an illusion, for others it is a linear process, a convenient mathematical or dynamical device; some have been forced to the conclusion that time is multi-dimensional; modern physicists have introduced the concept of the 'block Universe' in which time is but one dimension of a four-dimensional static, unchanging Universe explored by our individual consciousnesses (see page 1512). Relativity has put elasticity into time: it flows at different rates in different places (see page 47). The findings of quantum mechanics and nuclear physics have led some to conceive of even stranger universes in which time, if it passes, may even, for some subatomic particles, reverse its direction of flow.

Sir Thomas Browne (1605–1682), the famous thinker who, in his *Garden of Cyrus*, remarked, 'The night of time far surpasseth the day,' adding 'and who knows when was the equinox?'

Some of the most fascinating insights into the nature of time come from consideration of events best described as paranormal. Among these events are premonitions, precognitions and retrocognitions, apparitions spontaneous and experimental – events, in short, that many people are apt to dismiss as harmless lunacies, a legacy from our prescientific superstitious past, unworthy of the attention of any scientist. And yet it seems that, far from being deceitful or useless, these reports, and the analyses made of them by hard-headed philosophers and scientists, do indeed shed light on the anatomy of time, enabling us to come to certain important conclusions not only about its nature but also about the nature of the human personality.

How long does 'now' last? How 'thick' is time?
See page 1666

Plus ça change...

The concept of time that has characterised the Western outlook on the world has always been a dynamic one. It was expressed in perhaps its most extreme form in the thought of the Greek philosopher Heraclitus (*c.*540–*c.*480 BC) – 'All things flow, nothing stays still'; 'Nothing endures but change.'

The importance assigned to time and change in Eastern thought results in a world view that is startlingly different. In Indian thought, in particular, time is conceived of as static rather than dynamic; the universal is emphasised at the expense of the changing, the particular: 'The one remains, the many change and flee.' Indian thought does not admit Heraclitus's contention that 'it is not possible to step in the same river twice': what is important is not the flow of water but the unchanging universal aspect of the river itself, a view closely echoed in Maurice de Macmahon's famous phrase '*Plus ça change, plus c'est la même chose*' – 'The more things change, the more they stay the same.'

This static concept of the world is strongly reflected in the classical Sanskrit of ancient manuscripts (left). Sanskrit uses few descriptive verbs to denote action – 'John ran down the street', for example, becomes 'John did running down the street', in which 'running down the street' is regarded as a state in which John happened to be, rather than an action he chose to perform. Similarly, 'Because of the rain, the crops flourish' becomes 'Because of the rain, flourishing of the crops.' Heraclitus's 'All things flow' is almost unrecognisable as *sarvam anityam*, 'All existences are impermanent.'

This attitude to time results, in modern Hindustani, in linguistic features that can be confusing. *Kal* means both 'yesterday' and 'tomorrow'; *parson* means both 'the day after tomorrow' and 'the day before yesterday'. The real meaning of these words can be determined only by analysing the context in which they occur.

Burning with guilt

Left: Frendraught House, the family seat of the powerful Crichton clan for many years. Because of the tragedy that took place there in the 17th century, it is said to be haunted – and the wife of the present owner is one of the witnesses to the haunting

When a major feud between two great Scottish clans ended in a fire that killed several members of one faction, the local populace laid the blame on the lady of the manor. FRANK SMYTH recounts how her guilt-ridden ghost still haunts the scene of the crime

ONE OF THE CLASSIC THEMES of supernatural lore is the unhappy ghost doomed to haunt the scene of its earthly wrongdoing until its sins are expiated. Is Frendraught House in Aberdeenshire just such a scene of a 'penitential' haunting? There are folklorists and witnesses who think that it is.

Frendraught House lies about 6 miles (9 kilometres) to the east of Huntly in the centre of the extensive Bognie estates. Its foundations date from 1203, though additions were made to it as recently as the 1840s. Its main bulk – containing inner walls up to 9 feet (2.7 metres) thick – was built between the 14th and 17th centuries when it was both home and fortress to the powerful Crichton family. During those three centuries the Crichtons, along with their cousins and neighbours the Gordons and Leslies, controlled the north-east of Scotland. They were often embroiled in bloody feuds.

In the spring of 1630 Frendraught was occupied by Sir James Crichton. He had made a good political marriage to Lady Elizabeth Gordon, eldest daughter of the Earl of Sutherland, and she took an active part in her husband's continual disputes. As one Victorian commentator put it, she played a role somewhere between that of Medusa and Lady Macbeth.

The 1630 dispute over boundary lands was between Sir James Crichton and Gordon, Laird of Rothiemay. Sir James settled it in typical fashion by shooting Gordon dead. The Marquis of Huntly, the local High Sheriff who was himself a Gordon closely related to both sides, fined Sir James heavily. This 'blood money' was paid to young John Gordon, the new Laird of Rothiemay, and honour seemed satisfied.

By midsummer, however, Sir James was fighting again, this time with Leslie of Pitcaple. Matters came to a head when a Crichton shot Leslie through the arm with an arrow. Again the Marquis of Huntly heard the case, this time ruling in favour of Sir James. The wounded Leslie rode off in a fury, openly swearing revenge on the house of Crichton: Sir James therefore took the precaution of assembling an armed party to escort him back to Frendraught. Surprisingly, it included young John Gordon of Rothiemay as well as the Marquis of Huntly's son, John Melgum Viscount Aboyne. The party arrived in the dusk of an October afternoon. Lady Crichton, perhaps relieved to see her husband home safe, pressed even the unloved Gordon kin to stay the night. The guests were put in the old tower.

Lord Melgum was given a room separated

Below: the scene of a modern-day haunting – part of the original old tower staircase at Frendraught. At the time of the fire, the rest of the tower staircases were wooden – and, burning fiercely, cut off the doomed guests

Right and below: Sir James and Lady Elizabeth Crichton. Their guests, among them some clan rivals, met death by fire at Frendraught House. Lady Crichton was known to be a strong support to Sir James in his many feuds, which may be why people thought her guilty of causing the fire

Below right: the Marquis of Huntly, the local High Sheriff, was closely involved in the events at Frendraught House – and not just as an official. His son, Lord Melgum, was one of those who burned to death in the old tower while trying to help the others

from the upper storeys by a wooden staircase. John Gordon of Rothiemay was on the second floor, and the other guests and servants above him. Spalding, a contemporary chronicler, tells what happened: 'About midnight that dolorous tower took fire in so sudden and furious a manner, and in ane clap, that the noble Viscount, the Laird of Rothiemay, English Will, Colonel Ivat and others, servants, were cruelly burned and tormented to death.'

Lord Melgum, it is said, ran to help the others, but the wooden stair caught fire and he was trapped with them. According to Spalding: 'They hurried to the window looking out into the close, piteously calling for help, but none was or could be rendered them.' Altogether about a dozen people lost their lives.

Death by design

An event of this magnitude cast shadows far beyond north-east Scotland, and the Privy Council in Edinburgh became involved, setting up a commission of bishops and neutral peers to investigate. The commission sat at Frendraught on 13 April 1631. The bishops merely declared that 'the fire could not have happened accidentally but designedly.' There the mystery of the fire rests, unsolved to this day. However, local opinion of the time laid the blame squarely on Lady Frendraught. An anonymous ballad written a few months after the event said of Rothiemay's final moments:

When he stood at the wire window
Most doleful to be seen
He did espy the Lady Frendraught
Who stood upon the green.
And mercy, mercy Lady Frendraught
Will ye not sink with sin
For first your husband kilt my father
And now ye burn his son.
Oh, then it spake Lady Frendraught
And loudly did she cry
It was great pity for good Lord John
But none for Rothiemay
But the keys are sunk in the deep
draw well
Ye cannot get away.

To the Marquis of Huntly there was only one way to avenge his dead son. Laying aside his High Sheriff's impartiality, he recruited a small army of highlanders and raided Frendraught, carrying off 60 cattle and several dozen sheep.

Crichton appealed to Edinburgh, and the Privy Council came down in his favour. Huntly was fined and Sir James received damages.

Despite their vindication by the Privy Council, both Sir James and his Lady seemed changed by the terrible fire. Three years afterwards he gave a silver chalice, said to have been one of 11 brought north by Mary Queen of Scots, to the nearby kirk at Forgue. Today the chalice, the oldest known

piece of hallmarked silver in Scotland, lies in a bank vault in Huntly.

Lady Frendraught took her three daughters and went to live as a recluse at Kinnairdy on the River Deveron. Born a Catholic, she was excommunicated when she signed the Solemn League and Covenant supporting Presbyterianism. Turning back to her old faith, she was rebuffed. 'I refused absolutely to see her,' wrote Father Blackhall, 'because

'According to local opinion and the direct testimony of tenants, guests, and my wife,' says Mr Morison, 'Frendraught is haunted by Lady Elizabeth Crichton, who is bound there because of her guilt. I have never felt or seen anything myself, but according to legend the Laird never does anyway.' Mr Morison believes in Lady Crichton's guilt. He cites documents showing that, when the 'deep draw well' in the courtyard was cleaned out during alterations in the 1840s, massive keys were found. This supports the allegations of the old ballad.

The recorded sightings of a 'dark woman in a white dress' at Frendraught go back at least to the early 18th century when a Victorian clergyman-writer claimed that she was seen both in the house and among the great beeches around it. The first modern sighting on record occurred in 1938 when the house stood empty and locked. The late William Thomas, former manager of Glendronough Distillery on the borders of the Bognie estate, was in his early teens at the time. One autumn afternoon he was out shooting crows behind the house. Looking up, he saw a pale face surrounded by dark hair, watching him from a window overlooking the courtyard. He called a keeper who also saw the 'intruder'. Armed with their shotguns, the two broke in through a kitchen door and searched the house from top to bottom. There was nobody there, and no sign of forcible entry but their own.

Nearly 10 years later, Mrs Yvonne Morison encountered the ghost.

> It was 28 October. I remember the date because my husband had gone away with the Canadian Army reserve the day before. I was completely alone in the kitchens in the basement – the oldest part. Suddenly in the silence I heard footsteps coming down the staircase from the top of the house. I was

she was suspected to be guilty of the death of my Lord Aboyne. . . .' When she died, it was without benefit of clergy, on an unrecorded date. She was buried, like her husband, in an unmarked grave.

Sir James's eldest son was the last of his line. He was created Viscount Frendraught by his cousin Charles I for services rendered during the Civil War. After his death, his widow married George Morison of that Ilk, Chief of the Morison Clan and Laird of Bognie. His descendant, Alexander Gordon Morison, became Laird of Bognie and Mountblairy and owner of Frendraught House in 1942. He was born in Canada and inherited the chieftainship and family estates from his uncle. Immediately after the Second World War he and his young family lived at Frendraught House, but later moved to Mountblairy – not, he insists, for fear of ghosts, but for practical reasons. After several years of being leased, Frendraught House now stands empty.

Opposite: the main staircase at Frendraught House. The ghost of Lady Frendraught in a white-and-gold dress has been seen here and on the back stairs, as well as in the grounds of the estate

Opposite below: the silver chalice presented to Forgue Kirk by Sir James three years after the fire. It is said to have been brought to Scotland by Mary Queen of Scots and is the oldest piece of hallmarked silver in the country. Did Sir James give it to the church to ease a guilty conscience?

> terrified, but something made me go to the bottom of the stairs where they eventually entered the kitchen. I peered up into the darkness and remember thinking very strongly – I may even have spoken aloud – 'Well, come on then. If you exist, show yourself.' Perhaps fortunately, the footfalls stopped at the top of the kitchen stairs, and I saw and heard nothing else.

The footsteps were too heavy and clear to be made by mice, she said, and rats had never been seen in the building. 'I knew all the "natural" creaks and groans of the old place. It was none of these.'

Twice the Morisons had guests who cut short their visits because of mysterious disturbances. On both occasions the guests were level-headed people. One was an old army colleague who had been in the thick of the fighting with Mr Morison during the Italian campaign. In both cases their stories matched in every detail, though they had never met. Mrs Morison explained:

> It was quite funny at first. They were a bit embarrassed and it became clear that they thought my husband and I had had a furious fight during the night. When we pointed out that the wall between our bedroom and theirs was 8 feet [2.4 metres] thick and totally soundproof, they became alarmed. They said that they had heard the most dreadful cries for help, with the sound of crashing, like heavy furniture being thrown about, and screams. They had been too terrified to investigate.

Above and left: the present owners of Frendraught House, Yvonne and Alexander Gordon Morison. The Morisons lived at Frendraught for a time after the Second World War, having inherited it in 1942. Mrs Morison had a personal encounter with the ghost of Lady Crichton – as did guests and later tenants

Curse of the chalice

Several guests and subsequent tenants at Frendraught had described seeing a dark lady in a white dress edged and decorated in gold. She was usually standing or walking on the main staircase or the back stairs.

Mr Cryle Shand, genealogist, lawyer, and tenant of Yonder Bognie Farm, has an open mind on the subject of the ghost, but feels that Lady Crichton was more to be pitied than blamed. According to his own theory, she may have been impelled to whatever action she took by a curse – the curse of the chalice that Sir James gave to Forgue Kirk three years after the fire.

> From my research I am almost certain that the cup was one of those brought north by Mary Queen of Scots in the middle of the 16th century: although it is hallmarked 1663 its base is typically pre-Reformation. The Bible says that 'he that eateth and drinketh unworthily, eateth and drinketh damnation unto himself.' Although the Crichtons were nominally a Catholic family, they were a fairly ungodly lot. I believe that Sir James used the sacred chalice for profane purposes – probably for drinking his dram out of – and that the troubles of his family and that of the Gordons who were so closely related to them were brought about by that Biblical damnation. That is why Crichton so piously repented and gave the cup back to the church. That is why it is treated with such respect by the elders of Forgue Kirk to this day. And that is why Dr Arthur Johnson, an 18th-century Scottish Latinist, describes Frendraught as *Tristis et infelix et semper inhospita turris* ('O sad and unhappy and ever inhospitable tower').

With a nod or a wink

The old belief that a corpse will react to the presence of its murderer seems to have found horrific expression in the strange case of Joan Norkot. GRAHAM FULLER and IAN KNIGHT investigate the 'impossible' story of the rotting corpse that winked

ONCE DEAD AND BURIED few people have shown signs of life, but those that have, or are rumoured to have been reanimated, have naturally enough inspired the witnesses with awe and fear. In the case of Joan Norkot, who died in 1629, her brief moment of posthumous glory did more; it was enough to point the finger of accusation – almost literally – at her murderers, and subsequently to secure their conviction.

Such was the course of justice in 17th-century England. In those days of widespread superstition it was firmly believed that the body of a murder victim would bleed at the touch of the assassin, and considered binding legal evidence if it did so.

The strange case of Joan Norkot was rediscovered in 1851, when it was one of the legal and historical occurrences selected from the day books of Dr Henry Sampson for inclusion in the July edition of *The Gentleman's Magazine and Historical Review*. In 1851 pragmatism, fact and scientific evidence were the order of the day, as this Victorian journal's prefatory remarks on the case show:

The next extract contains a narrative of a very singular legal case, which comes down to us upon the most unquestionable authority – that of the old Serjeant who, after having been an original member of the Long Parliament of Charles I, lived as father of the bar to congratulate King William on his accession in 1688. . . . It would be difficult to parallel the following relation of superstition and miserable insufficiency of legal proof. . . .

Top: the Long Parliament of 1640, in which John Mainard (above) had sat, living long enough to see William III come to the throne in 1688. Yet his intellect remained as sharp as ever and he was considered an impeccable witness to the bizarre case of Joan Norkot

Left: the resuscitation of Margaret Dickson, a murderer who was hanged in 1728. But Joan Norkot had actually decomposed – how could she have revived?

The 'old Serjeant' in question was one Sir John Mainard, 'a person of great note and judgment in the law', whose version of the Norkot incident was recorded in a manuscript 'fair written with his own hands' and discovered among his papers after his death at the age of 88 in 1690; a copy of it was taken by a Mr Hunt of the Temple, who gave it to Dr Sampson for his records.

Joan Norkot lived in Hertfordshire – it is not known exactly where – with her husband Arthur, her infant son, her sister Agnes and brother-in-law John Okeman, and her mother-in-law Mary Norkot. By all accounts a cheerful, good-looking woman, happily married and a good mother, Joan was well-known to the locals, who expressed surprise and horror when it was revealed that one morning she had been found with her throat cut, apparently the victim of a violent attack, still clutching her child in her arms. Her family claimed that it was suicide.

So had Joan committed suicide? On the night of her death, said Mary Norkot and the Okemans, Joan's husband had been away, visiting friends. They further claimed that there had been 'a deal of trouble' between Arthur and Joan of late, and that on her last evening alive she had been 'in a sour temper, and some despondency'. So maybe, in a fit of despair, she had plunged the knife into her throat. But this was not good enough for Joan's friends and neighbours. In the weeks following the inquest rumour grew to such an extent in the village that it directly challenged the legal verdict. With new evidence coming to light from investigations at the Norkot cottage, it was widely believed that Joan could not have killed herself. Acting on popular opinion,

> the jury, whose verdict was not drawn into form by the coroner, desired the coroner that the body, which was buried, might be taken up out of the grave, which the coroner assented to, and thirty days after her death she was taken up, in presence of the jury and a great number of the people.

Left: a portrait said to be of Sir Nicholas Hyde, the Lord Chief Justice at Hertford Assizes (below) in 1629 when Joan Norkot's family were tried for her murder. At first it was thought that Joan had committed suicide, but the local people suspected foul play and her body was exhumed. Each member of Joan's family was compelled to touch the grisly remains, which then winked and raised a finger – damning evidence against them in those days. Once the case was brought to court other, more conventional, evidence came to light, and the accused were convicted of Joan's murder and duly hanged – except for her sister-in-law Agnes, who was reprieved because she was pregnant. The motive for the murder remains obscure

The touch test

It was at the exhumation, according to the testimony later given in court by the local clergyman, that the test of touch decreed by superstitious custom was made. Mainard takes up the story:

> . . . the four defendants present, they were required, each of them, to touch the dead body. Okeman's wife fell on her knees and prayed God to show token of their innocency, or to some such purpose. . . . The appellers did touch the dead body, whereupon the brow of the dead, which was of a livid or carrion colour (that was the verbal expression in the terms of the witness) began to have a dew or gentle sweat [which] ran down in drops on the face, and the brow turned and changed to a lively and fresh colour, and the dead

> opened one of her eyes and shut it again, and this opening the eye was done three several times. She likewise thrust out the ring or marriage finger three times and pulled it in again, and the finger dropt blood from it on the grass.

This, in 1629, was irrefutable proof of homicide, and once the furore that necessarily accompanied Joan Norkot's sudden return to the land of the living (and equally abrupt return to eternal sleep) had died down, the jury altered its verdict.

Although it was now declared that Joan Norkot had been 'murdered, by person or persons unknown', the eye of suspicion had come to rest firmly on Arthur, Mary, Agnes and John, and they were subsequently tried at Hertford Assizes – and at first acquitted.

Below: an altar tomb. There are many legends of 'mysterious' rappings coming from such tombs, and of skeletons found bent and twisted inside them. Premature burial was common – comatose or cataleptic people were often thought to be dead and were duly buried, only to die of asphyxiation, thirst or horror. Yet it seems that Joan Norkot was well and truly dead when her body was exhumed, so premature burial can be ruled out as an explanation for her brief reanimation

'The evidence' weighed so heavily against them, however, that presiding Judge Harvy suggested 'that it were better an appeal were brought than so foul a murder should escape unpunished.' Joan Norkot's orphaned son became the plaintiff in the appeal, which was duly lodged against his father, grandmother, aunt and uncle. Said Mainard himself, '. . . because the evidence was so strange I took exact and particular notice of it.' In the trial the events at the graveside were soberly recounted by the local parish minister, described by the chronicler as a 'grave person' but one whose name has not survived.

Not surprisingly, the officiating judge, Chief Justice Nicholas Hyde, doubted the old cleric's evidence. 'Who saw this beside yourself?' he asked the witness. 'I cannot swear that others saw it,' replied the minister, 'but my Lord, I believe the whole company saw it, and if it had been thought a doubt, proof would have been made of it, and many would have attested with me . . . .'

Further, less fantastic evidence was then brought against Mrs Norkot senior and the Okemans, adding to the argument that if no one had gone into the cottage between the time when Joan retired for the night and when she was found dead, then they must be her murderers. Joan had been found lying in her bed with the bedclothes undisturbed, and her child with her – indicating that suicide had not taken place in the bed, in fact not at all. Her throat was cut from ear to ear and her neck broken, and if she first cut her throat, she could not break her neck while lying in the bed, or vice versa.

Murder most foul

Clearly the dead body had been moved and there had been a half-hearted attempt to conceal the evidence. Moreover, the bloody knife had been firmly embedded in the floor some distance from the bed, point towards the bed, haft towards the door. However violent her death throes, there is no way that Joan Norkot – had she actually taken her own life – could have thrown the blade into that position. Lastly, there was the bloody print of a left hand on top of Joan's own left hand, an item of evidence that Chief Justice Hyde questioned but eventually accepted.

The four prisoners were then brought forward but had no defence to offer. Arthur Norkot's alibi collapsed when it was revealed that he had not visited the friends he had claimed to be staying with for several years. The jury retired and when it returned found Norkot, his mother and Agnes guilty of murder. Okeman was acquitted. The three guilty persons each cried out, 'I did not do it! I did not do it!' but, nevertheless, judgement was passed. Norkot and his mother were sentenced to death and duly hanged, but Agnes Norkot was reprieved when it was discovered she was pregnant.

In his reconstruction and discussion of the case in *Unsolved mysteries* (1952), Valentine Dyall suggests a possible – though speculative – reason for the murder:

> The motive for the crime remained obscure, though it was generally supposed that Arthur Norkot had believed his wife unfaithful. The other two women of the family, known to be jealous of Joan's good looks and position as mistress of the house, probably made willing accomplices – while John Okeman, a simple fellow, was bullied into silence.

But there is no logical explanation for the incredible scene that took place when Joan was disinterred. We can toy with the notion of premature burial, but there can be no doubt that Joan Norkot was well and truly deceased when she was laid to rest. Perhaps exposure to the elements had an immediate chemical effect on her decaying flesh, explaining the 'lively and fresh colour' of her brow, but how did Joan's eye wink, and her finger move and yield fresh blood?

Maybe it was just that Joan Norkot, in the course of divine retribution, awoke fleetingly from death to ensure that justice was done.

Post script

Your letters to THE UNEXPLAINED

Dear Sir,
I read *The Unexplained* every week and should like to say how much I enjoy it. I am particularly interested in UFO Casebook as I have had a similar experience myself.

It happened a few years ago, when I was in Glasgow Royal Infirmary for some skin treatment. One night I was lying awake when I noticed a bright light some distance away in the sky. At first I took no notice, thinking it was a plane, but as it drew closer I realised it had no navigation lights. By this time I was beginning to make out the object's shape. It continued to come closer. I sat up in bed and put on my glasses so I could see it better. I found I could make out its shape quite clearly: it looked like two saucers – one upside down on top of the other, with a slightly higher section on top.

I got out of bed and walked across the ward to one of the windows and stood there, watching the object for a while. Then I decided I ought to get a witness, so I woke one of the other patients, who asked what was wrong. I asked him to get out of bed and look out of the window. He did, exclaiming: 'It's a flying saucer!' We both stood watching it for about a minute, until it had moved out of view, behind one of the hospital wings.

The next morning we told the two nurses who were on duty about what we had seen – and it turned out that one of them had seen it from the kitchen next to our ward.

I telephoned the local newspaper, the *Daily Record*, and related my sighting. They thanked me for my call, and that was the last I heard – until my uncle showed me a small piece in the same paper the following week, which said that several people had reported a sighting the same night as I had.

Yours faithfully,
Joe McGeough Glasgow, Scotland

Dear Sir,
I was deeply interested in the feature about banshees, entitled 'Out of the Celtic twilight' [issue 68], for I had an almost identical experience to that of Irene McCormack – and in Hampshire.

In 1930 I lived with my father and mother in a very old thatched and timbered cottage at Botley, Hampshire. My father was away at sea at the time of the experience; it was midsummer and very warm and sultry, and my mother and I were asleep in bed with our bedroom windows open.

I was woken from my sleep by the most awesome sound I have ever heard. It started off with a low moan like the rising wind and went on and on up the scale, finally ending with a mocking note. My bull terrier was terrified – and normally nothing terrified him. He came upstairs and lay on my bed shivering and refused to leave me.

Three weeks later my mother suffered peritonitis and was taken to Southampton hospital, where she died shortly afterwards from pneumonia. Our village constable, PC Burdon, came to our house with the news – and although I did not know I had heard the banshee then, I accepted the sad news without surprise, for somehow I had known that I would never see my mother alive again when they took her to hospital.

For many years I have wondered why the banshee should wail in Hampshire and for the imminent death of my mother who, far from being Irish or of Irish descent, came from east Suffolk, where her family had deep roots.

Sheila St Clair would appear to have the answer when she says [on page 1353] that 'we also inherit memory cells, and that those of us with strong tribal lineages riddled with intermarriage have the banshee as part of an inherited memory.'

The Icenian tribe of East Anglia were not Irish – but they were most certainly Celts. Possibly this is the reason for the banshee howling for my mother, for she was as 'fey' as any Scots or Irish speywife – and strangely, she was not woken by the banshee when it howled.

Yours faithfully,
G. Goldsmith-Carter Deal, Kent

Dear Sir,
On pages 1034 and 1035 of issue 52 of *The Unexplained* you have ascribed the most famous vampire novel of the mid 19th century to the wrong author, Thomas Prest. The British Museum Catalogue has always listed *Varney the vampire* under the authorship of James Malcolm Rymer (1814–1884), author of *Ada the betrayed* and many other Victorian bestsellers, often published anonymously.

Louis James established beyond any doubt that *Varney the vampire* was the work of Rymer in his definitive study *Fiction for the working man 1830–1850* (Oxford University Press 1963; Penguin Books 1974). James has described Rymer as 'an intelligent and versatile writer who could manipulate the clichés of Gothic melodrama with a detachment that borders on the camp'.

Yours faithfully,
Richard Dalby Scarborough, North Yorks.

Dear Sir,
May I say how disappointed I was on reading in issue 51 – in an otherwise excellent article by Daniel Farson – an account of 'the vampire of Croglin Grange' and its 'attack on a Victorian girl'.

For a number of years I lived 4 miles [6 kilometres] from the tiny Cumbrian village of Croglin. I had read many accounts of the vampire in books by – among others – Valentine Dyall, and I decided to do some research into the matter myself.

I visited Croglin several times and went to Croglin Hall (not 'Grange'), which proved to be a substantial farmhouse – but hardly the stately home as described in the accounts I had read.

I spoke to the residents of the farm, to local people, and finally to a lady whose family had owned the hall for centuries. And I found that there was no 'Victorian girl', no 19th-century vampire – merely a word-of-mouth tradition of a haunting that may be traced back to 1590.

So where, please, did Dyall and Farson and all the others find their wealth of detail about the alleged Croglin vampire?

Yours faithfully,
J. Brian Blacklock London

Send *your* letters to THE UNEXPLAINED, Orbis House, 20–22 Bedfordbury, London WC2N 4BT

Some of the intriguing new series that will be starting soon in *The Unexplained*

Strength of mind
When a karate expert smashes bricks with his bare hands, he is using far more than sheer strength. For the secrets of this and other examples of the power of mind over matter, **see issue 84**

A century of psychical research
The Society for Psychical Research was founded in 1882. We review 100 years of discovery, progress and controversy in the face of persistent hostility from established science. **See issue 85**

In the image of Man
Certain Tibetan adepts can, it seems, create living beings – the very image of men, with independent existences – by the power of thought alone. **See issue 85**

Isle of dogs
Britain is famous for an odd 'haunting' – the mysterious black dogs that sometimes protect, sometimes attack, sometimes seem indifferent to those who meet them. An account starts in **issue 86**

Reach for the sky
Of all the aspects of ufology, few are as remarkable as UFO cults – people who believe that space beings will save humanity from itself. **See issue 86**

A thorn in the flesh of science
Charles Fort gently mocked the sins of scientists who ignored the weird facts he spent a lifetime collecting. We assess his significance in **issue 87**

The many lives of Joan Grant
Joan Grant is perhaps most famous for her books describing her previous lives. How she discovered them – and her other psychic powers – starts in **issue 87**

The magic land of Lyonesse
A fair country of castles and farms once lay off the coast of Cornwall – and, like Atlantis, vanished abruptly beneath the waves. Myth or reality? **See issue 88**

Doom and destruction
Why are some people so unlucky? Why do some inanimate objects bring misfortune to their owners? Is there any real power in a curse? **See issue 89**

One step beyond